gloss, and are almost identical in size and shape with those of A. atrigularis from Assam; they measure 1.49×1.1 .

EXPLANATION OF PLATE I.

Eggs of Indian Birds.

- 1. Suya superciliaris.
- 2. Prinia inornata burmanica.
- 3. Suthora brunnea.
- 4. Prinia inornata burmanica.
- 5. Suya superciliaris.
- Scheeniparus dubius intermedius.
- 7. Drymocataphus ignotus cinnamomeus.
- 8. Pycnonotus xanthorrhous.
- 9. Schœniparus dubius intermedius.
- 10. Sitta nagaensis.
- 11. Urocichla reptata catesi.
- Ægithaliscus erythrocephalus talifuensis.

- 13. Stachyrhidopsis ruficeps bhamoensis.
- 14. Yuhina diademata ampelina.
- 15. Trochalopterum phœniceum ripponi.
- 16. Trochalopterum milnei sharpei.
- 17. Trochalopterum milnei , sharpei.
- 18. Actinodura egertoni ripponi.
- 19. Garrulus leucotis.
- 20. Æthiopsar albicinctus.
- 21. Garrulus leucotis.

II.—Notes on Birds observed in Katanga, Belgian Congo. By L. BERESFORD MOURITZ, M.B.O.U.

IN 1911 I spent the last months of the year in the Katanga District of the Belgian Congo. The nature of the work in hand—a prospecting expedition under Auglo-Belgian auspices —unfortunately made it impossible to devote any time to the study of the local ornithology, and the following notes are simply the result of occasional observations made whilst out hunting, on the march, etc. It is perhaps hardly necessary to add that the few birds noticed do not in the least represent the great wealth of species which undoubtedly could be obtained by systematic collecting.

I arrived in Elisabethville about the middle of August, and after a short delay set out for the veld; but before leaving I was rather surprised to see a Black Helmet-Shrike (probably *Sigmodus tricolor*) in some tall trees in the Avenue du Moero.

Birds observed in Katanga.

From the capital we went to Tshinshenda and spent some time up and down the railway-line, especially in the neighbourhood of Moushosi. At Tshinshenda there were a few Wheatears (*Saxicola pileata livingstonii*) on the open ground close to the station; but I think that they must be only dryseason migrants, as when we revisited this locality in December they had apparently left. Yellow-billed Kites (*Milvus ægyptius*) were plentiful and, I understood, resident. These Kites, which the natives call "vimbwi," were occasionally seen solitary, but more frequently in parties; they were constantly round our camp in the bush, and displayed great audacity in the way in which they would swoop down to within a few feet of a "boy" and snatch up some morsel of meat. Peters' Glossy Starling (*Lamprocolius sycobius*) was very numerous, and I found it throughout the trip.

Finishing our immediate work along the railway, we travelled down to Sakania, and from here set out in earnest for Kalonga, viá Kavalo and Mandoko. We stopped at Muelwa's kraal on the Muniengashi River for a few days on account of inclement weather, and here enjoyed some good hunting. I found the Saddle-bill Stork (Ephippiorhynchus senegalensis), native name "sepi," in a bit of a swamp in the hills at the headwaters of the Muniengashi, and there were several large nests-without eggs-built up above the low vegetation of the marsh, which probably belonged to these birds. Several Crowned Cranes (Balearica regulorum) were seen in pairs on the swampy vleis along the Muniengashi, but this was the only time I met with these handsome birds. Plum-coloured Starlings, which I ascertained were referable to Cinnyricinclus leucogaster verreauxi were plentiful. I also shot a Thrush (Turdus libonyanus tropicalis), which was inquisitively investigating the tents from a tree close by. On the break of the weather we pushed on towards the North-Western Rhodesia border, passing through country, evidently from the old spoor, frequented by elephant and numbers of buffalo in the wet season. Here I met with the fine Lourie (Musophaga rossæ), but found it always very wary and difficult of approach.

The beautiful Livingstone's Lourie (*Turacus livingstonii*) is, however, much commoner, but prefers the more sequestered haunts to be found amid the trees and semitropical vegetation growing in ravines and along the, water-courses, to the ordinary timbered bush. An ignorant native was at great pains in the endeavour to persuade me that *Turacus* was merely the female of the larger species !

On the march one day we passed a lot of deep holes dug in the light soil, and our "boys" explained that these had been made by the local natives in the pursuit of "pendwa" (ant-bears). In one of these holes, in which there were stakes driven in from side to side in the semblance of a ladder, I found a species of bush Kingfisher breeding in a tunnel close to the surface. This bird had a red bill, and . scemed to have the whole of the upper side a bright cobaltblue. On the Moushosi Escarpment, later, I found a Kingfisher, apparently quite similar to the above, nesting in a hole of a tree about 10 feet from the ground-nest contained young. Honey-Guides (Indicator indicator and I. major) were very plentiful, and the line of porters became so scattered and impossible to handle, on account of their putting down their loads to look for honey, that we had to prohibit them breaking ranks for this purpose. The natives call the Honey-Guide "inguyi," and they seem so passionately fond of honey that it was impossible to stop them from following the "friend of bush-people," as, directly our backs were turned, they would sneak off in twos and threes every time they heard the harsh grating "churr ... churr" of an "inguyi." Some of the loads after a long journey would be so smeared and sticky with honey that we came to curse these birds. At different times I noticed a number of Kestrels, especially over the natives' lands and in the more hilly regions, and I think they were identical with the South African species (Cerchneis rupicola). The Bateleur Eagle (Helotarsus ecaudatus) is perhaps the commonest of the larger Birds of Prey, and is known to the natives as "chikori."

Arriving at Mandoko, we stayed some time in the vicinity,

but, although clephants were reported from the upper reaches of the Niamandi River, we failed to come up with them. Close to Mandoko I noticed a species of Rock-Martin (probably Ptyonoprogne anderssoni) in small numbers, and suspect that they breed in the quartzite hills here. The Kites, which frequented our encampment regularly, were often accompanied by White-necked Ravens (Corvultur albicollis), and occasionally a Pied Crow (Corvus scapulatus) would be venturesome enough to make a quick dash and quicker exit. The Ravens --- "chikwangala," -- strangely enough, seemed most plentiful in the bush districts away from the hills. I noticed several species of Sun-birds, but they were all new to me with the exception of Kirk's (Chalcomitra kirki), and I think a red-breasted species seen here and there was probably referable to the Northern Double-collared Sun-bird (Cinnyris ludovicensis), whilst another was evidently referable to the genus Anthothreptes. A common bird found nearly everywhere was the Bulbul (presumably Pycnonotus barbatus tricolor). The Standardwing Nightjar (Macrodipteryx vexillarius) was the commonest species noted, and was found practically throughout. The natives call the male "lubafa" and the female "kumbaza"; but I think the latter name is frequently applied to other species as well. On October 6th I found two clutches of two and one single egg of the Mozambique Nightjar (Caprimulgus fossii) on the foot-hills of the Irume Mountains. During a heavy rainstorm I have seen this Nightjar leave the ground and seek shelter on the bough of a tree, where it remained until the rain ceased. On the same date I also saw a number of Willow-Wrens (Phylloscopus trochilus), and heard them singing feebly; they appeared to have only just arrived.

After following the Loömbwa River some distance, we ran into the broadest tsetse-fly ("kasembi") belt encountered during the journey; and here one morning, returning with "boys" to cut up a large buffalo which I had shot, I saw several White-headed Vultures (Lophogyps occipitalis) which had congregated in the anticipation of a good fcast. On several occasions I have noticed "fly" settle on birds which I have bagged (guinea-fowl, etc.), and I therefore think it most probable that the tsetse not infrequently bites living birds as well as animals.

Leaving the river we passed through the country to the east of Mts. Moposhi, Miuta, and Kampondo, and this was the driest portion of our trip. We were, however, lucky enough to find stagnant water (which gave the tea quite an unique taste !) in deep-dug holes, but all the kraals were deserted. In spite of the waterless state of the country there were large numbers of sable, roan, eland, and haartebeeste, and we enjoyed excellent shooting. Two Hawk-Eagles (Hieraëtus spilogaster and Spizaëtus bellicosus) were noted here, but the former only came under my notice subsequently--when I saw a pair on the Moushosi Escarpment. Whilst out hunting one day I shot two sables, and the first (the herd bull) galloped off into the bush before falling. When I arrived, after despatching the other one, a Red-billed Oxpecker (Buphaga erythrorhyncha) was perched on the animal's back. On our approaching nearer, however, the bird called several times and flew to a tree close by, whilst the fine old bull turned its head, and, upon seeing us, struggled into a standing position and charged my gunbearer before I stopped it with a second bullet from my D.B. 303. There it stood, shot through the neck, with its front legs spread a bit, swaying in its death-agony, only to fall stone dead. The vernacular name for the Oxpecker is "sompa"; and although it is locally distributed in the Katanga, there are a good many in the rhinoceros-veld between the Luembe East River and the Luapula. In the neighbourhood of Mt. Moposhi I found the Larger Stripebreasted Swallow (Hirundo cucullata) in pairs.

Arriving at Inkosakapenda's on the Loömbwa, I saw Marabou Storks (*Leptoptilus crumeniferus*) associated with puku ("sebula"), whilst at other times they were to be seen solitary in the uppermost branches of a flat-crowned acacia, where they would stay stolidly, perched on one leg, for hours. On a mere, close to our encampment, there were

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a lot of Dabchicks (Podiceps capensis) breeding, and I also saw a single Great Crested Grebe (P. cristatus), while there were also a good many Ducks (Anas undulata). The Large Wattled Plover (Lobivanellus lateralis), the Three-banded Plover (Ægialitis tricollaris), and two species of Sandpiper were other birds noted in this locality. On the Loömbwa itself, also on the Luapula later, I saw several Sea-Eagles (Haliaëtus vocifer), and their piercing screams became quite familiar. The native name for these fine birds is "kwazi." A big flock of Eastern Red-legged Kestrels (Cerchneis amurensis) put in an appearance one day and roosted in a large bare tree close to the river. White-bellied Storks (Abdimia abdimi) also were in evidence, but I did not see the White Stork. On the flats by the river I noticed the Yellow-throated Longclaw (Macronyx croceus), and often saw them running about amid the herds of puku antelope. A common bird in the bush was Smith's Helmet-Shrike (Prionops talacoma) and I found it throughout. Everywhere the Fork-tailed Drongo (Dicrurus afer) was especially numerous, and, as is its wont, always in evidence at grassfires, where, however, its daring is quite outclassed by the graceful and leisured, yet methodical, ways of the Kite. The natives know the Drongo as "matengu." I observed several Grey Cuckoo-Shrikes (Coracina pectoralis), but it was an uncommon and local species. Other birds which I found somewhat locally distributed were the African Hoopoe (Upupa africana)-native name "bubuti"-and the Wood-Hoopoe (Irrisor erythrorhynchus). A large Nightjar, which I found on a stony rise close to Inkosakapenda's, appeared to be the Freckled Nightjar (Caprimulgus trimaculatus). The Pied Kingfisher (Ceryle rudis)-native name "mlondwi"—and the Giant Kingfisher (C. maxima)— "matambo"-both occur here and there along the running streams, but appeared to become more numerous after the rainy season had set in.

Leaving this locality we pushed on through Pola and struck the Luapula River. This fine waterway runs south and westwards out of Lake Bangweolo (approx. alt. 1200 metres), and turning north eventually flows into Lake Moero (alt. 972 metres). Hammerheads (Scopus umbretta)-" masalutaka" -became more plentiful; but it is a widely distributed species, and I found it in most localities suited to its habits. As is the case south of the Zambesi, the natives regard this bird with superstition, as well as the larger Striges. Returning from hunting one evening I saw a pair of Fishing Owls (Scotopelia peli) flying along the river-bank at sunset, but did not meet with the species later. The Green Ibis (Theristicus hagedash) was found, but only in twos and threes. Guineafowl (Numida sp. incog.) were numerous here as elsewhere, but were extremely wary-this being probably due to the approach of the breeding-season. The native name is "kanga." These birds seemed to closely resemble N. mitrata, agreeing in the shape of the helmet, but I found the soft parts to be: irides deep brown; helmet deep orange-vellow; naked skin on the face and neck blue; wattles blue with scarlet tips; bill brownish-horn; legs and feet varying from dark grevish-brown to blackish. Common Sandpipers (Tringoides hypoleucus) occurred in several places, but I did not notice them after the rains had set in properly. A few red-legged Plovers (Stephanibyx coronatus) were observed, but I found them very local. The White-rumped Swift (Apus caffer) occurred on our approach to Kalonga, but was not seen anywhere else; whilst the Black-collared Barbet (Lubius torquatus) was seen here and there, but was not a plentiful species. On the ant-hill studded flats along the Luapula, which carry numbers of puku and reedbuck, I noticed several different kinds of Larks and Pipits, but could not be sure of identification. One species, however, I think was referable to the Grey-backed Lark (Pyrrhulauda verticalis). Entering timbered country again, the Blackheaded Oriole (Oriolus larvatus) became quite common, and I also came across one or two Andersson's Orioles (O. notatus). Along the streams Weaver-birds were nesting in November and December. I found eggs of the Black-headed Weaver (Ploceus nigriceps), but the commoner Smith's Weaver (Sitagra ocularia), although present in larger numbers, did not seem to have commenced laying. Late in October I found a Woodpecker's nest (apparently *Campothera bennetti*) containing two nestlings. The nest was situated in the hole of a tree only five feet from the ground. The native name for this bird is "swiswi."

We stayed at Kalonga for over a fortnight, and were gladdened by the sight of a white man-a Belgian Official being stationed here on the Sleeping Sickness Cordon (Kalonga being the southernmost post on the Congo side). All canoe-navigation, with the exception of the ferry, on the river below this point was stopped, and the whole place, like other Belgian Official Posts, seemed a pretty dead-and-alive sort of hole. Early in November here I noticed the House-Martin (Delichon urbica), together with the little Pearlbreasted Swallow (Hirundo dimidiata) and numbers of the Smaller Stripe-breasted Swallow (H. puella); a few days later, there was a perceptible wave of Common Swallows (H. rustica), amid which I am almost sure a good many White-throated ones (H. albigularis) were intermingled. The native name for a Swallow is "tumimiïa." Towards the middle of November great numbers of Black Swifts (Apus apus) appeared, but I do not think they stay very long in the district. A small Woodpecker (probably Dendropicus zanzibari) was not infrequently noticed within the precincts of the Post. The "Go-away Bird" (Chizaerhis concolor), so familiar south of the Zambesi, was found to be very local in the Katanga and by far the rarest of the family. On a sand-spit at the head of an island a short distance below Kalonga I identified, with the aid of glasses, the African Spoonbill (Platalea alba); and a flock of Geese (Plectropterus gambensis)-" karangu,"-flying in their customary V-shaped formation, was also noted here. Before our departure the European Roller (Coracias garrulus) appeared, and was subsequently found throughout the trip; but its relative, the noisy Cinnamon-backed species (Eurystomus afer), is equally numerous and, moreover, resident. The Little Bee-eater (Melittophagus meridionalis) was rather plentiful, but appeared to frequent the rivers to a great SER. X .- VOL. II. D

extent. There was a pair of Black-and-White Wagtails (possibly referable to *Motacilla vidua*) always about the Belgian Official's house; and I also met with this bird at nearly every large kraal we passed through; it is known to the natives as "kaliïlia."

Upon leaving Kalonga we travelled through timbered country with the usual vleis; and at Sikobwa's kraal, where there were a lot of buffalo on the Chalinagoma River, we halted for a few days. Here I noticed the Little Egret (Herodias brachyrhyncha) again, but not in the numbers which were to be seen along the Luapula in places. The native name is "kunkolikoli." Verreaux's Glossy Starlings (Cinnyricinclus leucogaster verreauxi) were also very plentiful. The beautiful male was in evidence throughout the low-lying wooded country, whilst the dull-coloured female was also common, but I did not find it associating with the opposite sex to any extent. This Starling was not found in the hills, nor was it often seen along the larger rivers. Two or three Bush-Shrikes were also noted, amongst which I recognised the Black-headed (Pomatorhynchus senegalus) and also, I think, the Eastern Three-streaked species (P. minor). Hartlaub's Shrike (Laniarius major) was also not uncommon. Contrary to my expectations, I did not see the European Red-backed Shrike (Lanius collurio), which is such a common summer visitor south of the Zambesi. A plentiful species throughout was Arnot's Black Chat (Myrmecocichla nigra).

Arriving at Sakania once more we obtained a fresh supply of stores and set out, parallel with the railway, towards the Mokambo Hills; and here I noticed a Tree-Creeper (Salpornis salvadorii) on November 25th. European Bee-eaters (Merops apiaster) now appeared in considerable numbers, whilst the rarer Blue-cheeked species (M. persicus) and, I think, Boehm's (M. boehmi) also occurred less plentifully. The natives call a Bee-eater "imbangalima." Whilst camped here I shot a Tawny Eagle (Aquila rapax), but this was the only one seen. Fruit-Pigeous, which appeared identical with Schalow's (Vinago schalowi), were not uncommon in places, but inclined to be local. Native name "polobi." I found the Red-eyed Dove (*Turtur semitorquatus*) especially abundant in the neighbourhood of natives' lands and kraals, and they are known as "kiwa" or "kufia." The smaller Laughing Dove (*T. senegalensis*)—" kumperi"—was also plentiful and more widely distributed than the last named.

Striking out across country we eventually arrived at the Moushosi Escarpment, and here remained for a considerable time. The Ground-Hornbill (Bucorax cafer), the "menornba" of the natives, was very common, and not a day passed but we heard the peculiar booming note of this bird. The call is particularly noticeable early in the morning, often starting before sunrise, and consists of two notes (answered by the female with a similar call, but in another key). As the sun ascends, the call often consists of four or five notes, and so on, until about 9 or 10 o'clock, when they become silent to a great degree. Other species of Hornbills noticed were the Zambesi Trumpeter (Bycanistes cristatus), the Crowned Hornbill (Lophoceros melanoleucus), and, I think, the South-African Grey species (L. epirhinus). The natives call the larger species "malongwe" and the smaller "vunvunganana," When we were at Sikobwa's kraal the "boys" brought into camp two fledgeling "malongwe" (Bycanistes) which they had taken from a hole in a tree, after the female had been released by her mate. Again, about a week later, the cook captured a female Crowned Hornbill which was imprisoned, but which was nearly through with her moult. This bird was very fat and in extremely good fettle, and was considered a great delicacy. Parrots (Peocephalus meyeri) were common here, and I believe I also saw a larger species, with red in the wing, on one or two occasions. When returning from shooting one morning, I had left my "boy" to bring in a fine big bushbuck, when I saw a duck in a small stream flowing out of one of the many ravines here. This little duck proved to be a Cape Widgeon (Nettion capense). On seeing me it dived, or rather submerged itself almost completely, and I blew the back of its head off with a 375 Express bullet ! The

native name is "chosu," but this is applied to other species as well. I found the little Emerald-spotted Dove (Chalcopelia afer) rather numerous, especially on the Escarpment, and the natives know it as "katutwa." The Coqui Francolin (Francolinus coqui) was found to be widely distributed, but somewhat more plentiful on the higher ground. Natives call it "chesumisondi" or "chintalatala." There were also "partridges " (Francolinus sp. incog.)-" kapezi"-and "pheasants" (Pternistes sp. incog.)-" insokozi," but the latter are the more numerous. The upper plumage of the "pheasant" somewhat resembles that of P. swainsoni, but below the feathers are speckled with dark grevish-brown and white, and with broad rufous edges extending from the throat to the under tail-coverts-the rufous edging, however, being more pronounced on the lower breast and abdomen than elsewhere. Bare skin round the eyes, on throat, beak, and legs red. Close to the headquarters of the Moushosi River I noticed a species of Rail (apparently Rallus cærulescens), whilst on the same river I saw Peters' Fin-foot (Podica petersi). On a tributary I met with a species of Ibis, but was unable to procure a specimen. There were only two of them, and they appeared to be slaty-grey both above and below. It was, however, well known to the natives, as they called it "umnganga" and told me that it was an extremely shy bird. This I found to be true. They would not permit me to approach within gunshot, but kept on flying off, with shrill cries, to the nearest outstanding tall tree. On the Moushosi River I noticed a good many Blackthighed Bishop-birds (Euplectes xanthomelas), and I first saw males in breeding plumage on the 13th of December, when I also noted a single Red-collared Widow-bird (Coliuspasser ardens), a male and in summer plumage. Once I saw some White-eyes (Zosterops sp. incog.). The Black Titmouse (Parus niger) was common, and there was also a rarer grey species in evidence at times. On November 30th I shot a species of *Psalidoprocne* on the Tshinshenda River. Upon dissection it proved to be a male. Description (this specimen was sent to the Pretoria Museum for identification, but was unfortunately lost in the post) :- Above and below sooty

black, glossed with steel-green-most pronounced on the head, neck, breast, and upper tail-coverts. Wings (especially the secondaries) and rectrices browner, but also glossed; first primary serrated; primary-quills white at bases, but quickly merging into brown; under wing-coverts and axillaries greyish, the former merging into pale brownish. Irides black, bill black, and feet brownish-black. Length 133, wing 101, tail 71, tarsus 10, and culmen 5 mm. I also noticed this Swallow (a) between Katala's kraal and Sakania, where it was flying in company with the European (Hirundo rustica), the Wire-tailed (H. smithi), and the little Pearl-breasted Swallows (H. dimidiata); (b) near Mokambo Hills; (c) Moushosi Escarpment; (d) Moushosi River. In the last instance they were flying in company with the Larger Stripe-breasted Swallow (H. cucullata), the European Sand-Martin (Cotile riparia), and the Banded Sand-Martin (C. cincta). On the 11th of December I shot a Harrier-Hawk (Polyboroides typicus) and also a Hooded Vulture (Necrosyrtes pileatus). The Vulture, one of two which came and perched in some trees overlooking our tents, was very tame (probably very hungry), and evidently could not resist the sight of so much meat-we had been rather successful in our hunting, and the "boys" were engaged cutting up and drying their portions and spreading the strips of meat on the usual rude framework of sticks over a fire. The native name for these birds is "duni," sometimes "morni" or "makubi." The Lead-headed Flycatcher (Tchitrea plumbeiceps) was not uncommon; but, as a rule, was only to be found in the dense growth which occurs along the majority of streams and in some of the ravines. I noticed one or two Purple Rollers, but did not ascertain whether they were referable to Coracias mosambicus or C. nævius. Two bush-loving Kingfishers (Halcyon swainson and *H. albiventris orientalis*) occur, but neither is at all numerous. On the 15th of December I met with a solitary Wryneck (Iynx ruficollis) on the Moushosi River, but I did not see this rare bird elsewhere. Later a single Coucal, presumably the Senegal Coucal (Centropus senegalensis), came under my notice.

Leaving this locality—our last real camp—we made for Tshinshenda, and on the way saw two or three Pearl-spotted Owlets (*Glaucidium perlatum*), which I had not previously noted, and also a larger species which was probably referable to *Bubo maculosus*—"magungwi." When we were at Kalonga one of our "boys" brought me a fledgeling Spotted Eagle-Owl.

Arriving back at Elisabethville before Christmas, I saw a Pin-tailed Widow-bird (*Vidua serena*) in town and also a blue Kingfisher, apparently similar to the birds met with near Mandoko and on the Escarpment, but with a black bill, and thus agreeing altogether with others which I came across on the Moushosi River.

III.—An Ornithological Expedition to the Eastern Canary Islands. By DAVID A. BANNERMAN, B.A., M.B.O.U., F.R.G.S.—Part I.

(Plates II.-VI.*)

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(Part II, will contain an annotated list of the birds obtained, with systematic notes on each species.)

[THE Expedition undertaken by Mr. D. A. Bannerman to the eastern Canary Islands in the months of May and June last has considerably increased our knowledge of the avifauna,

* For explanation of the Plates see p. 90.